

Abstract of the Disclosure

Highly discriminating optical edge filters and methods of making the same are disclosed. The optical edge filters have an edge steepness greater than about 0.8% as measured by dividing (a) the edge width from the 50% transmission wavelength to the optical density 6 (“OD6”) wavelength by (b) the 50% transmission wavelength. The optical filters also have an average transmission above about 95%. The methods for making such filters accurately determine when deposition of each layer of the filter should terminate. The methods include calculating theoretical transmission data for a layer of the filter and calculating an expected deposition duration for the layer. The methods also include measuring transmission through the layer during deposition for a period less than the expected deposition duration. When the measuring period elapses, a new deposition duration is calculated based upon the theoretical transmission data and the measured transmission data, thereby providing an accurate deposition duration for the layer.